

# From Food Crisis to Sustainable Food Security: Can we get there from here?

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CORNELL

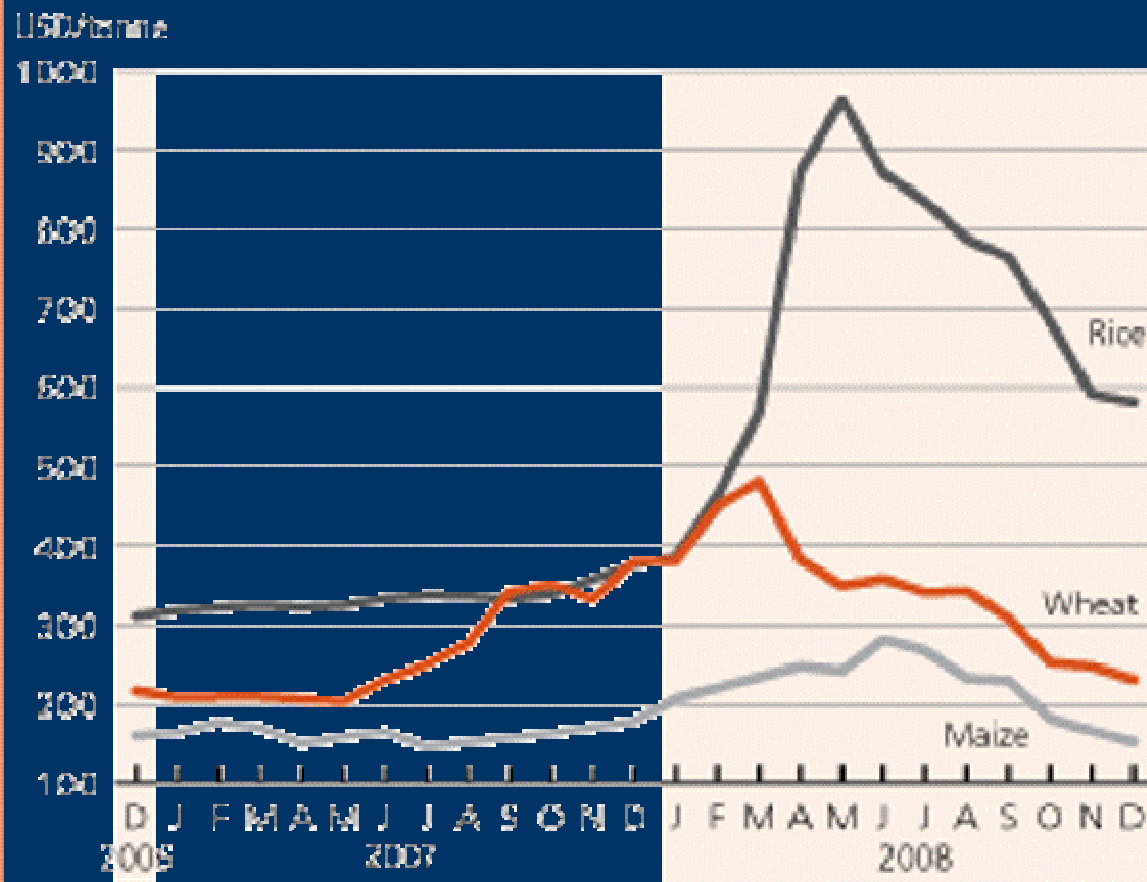
## FAO Food Price Index

1998-2000=100



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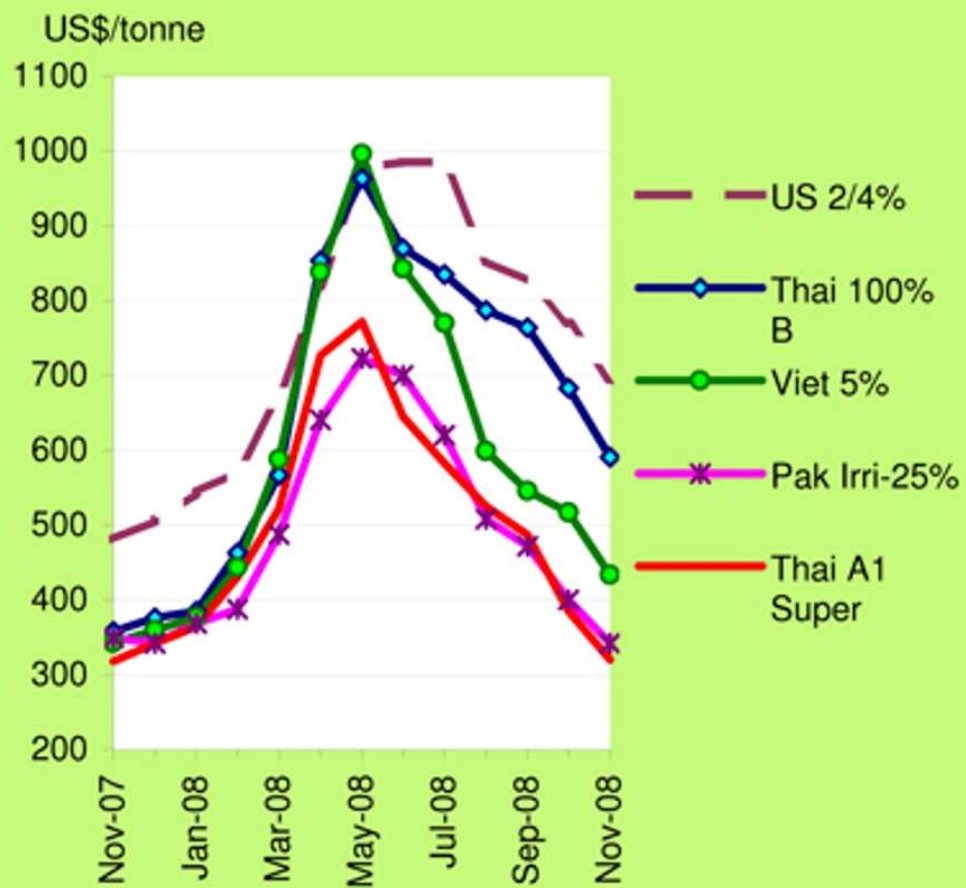
## Selected international cereal prices



Notes: Prices relate to monthly average. For December 2008, three weeks average.



## Export Prices for Rice



## Percent Decrease in Price Between the Highest and January, 2009

Commodity	Highest Month	Decrease Since Then (%)
Wheat	March, 2008	51
Maize	June, 2008	46
Soybeans	July, 2008	41
Rice	May, 2008	60

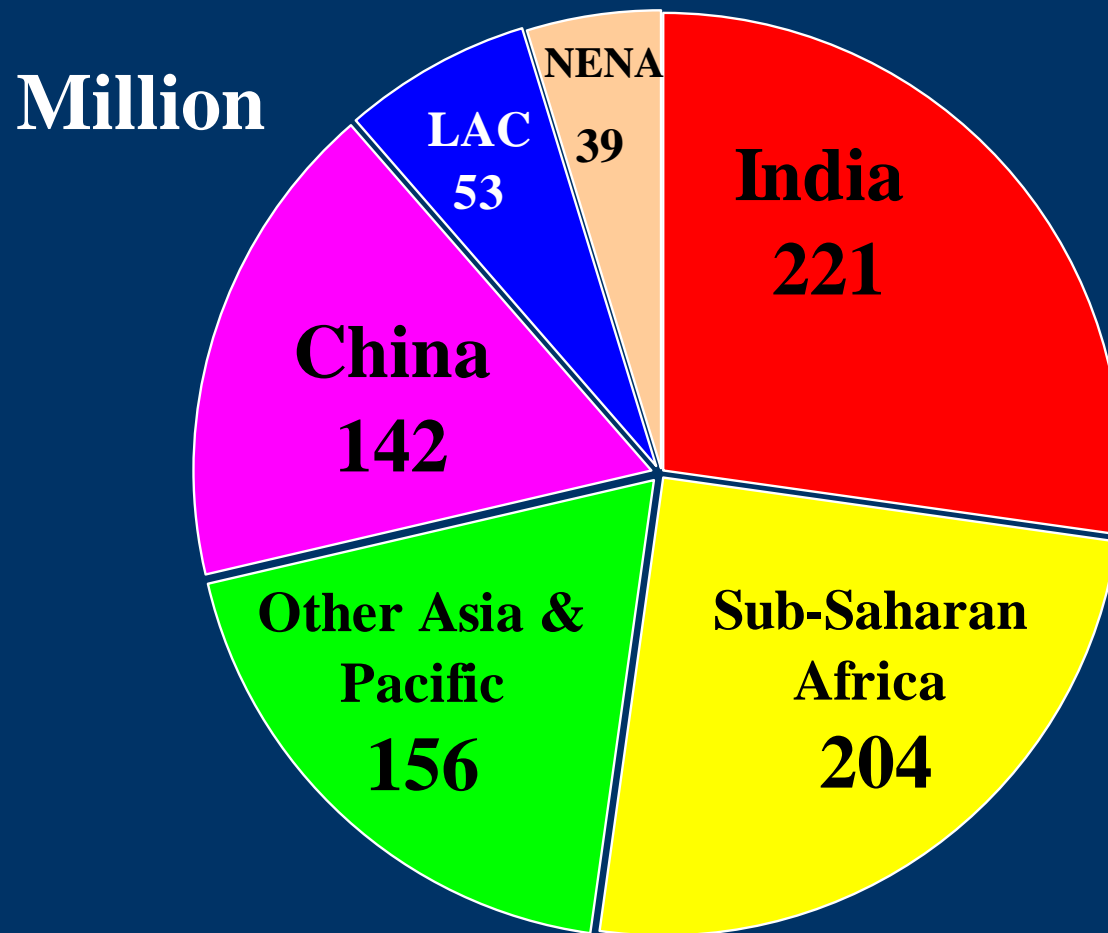


# Causes of Food Price Fluctuations

- Supply-side factors
- Demand-side factors
- Market factors
- Public policy factors
- Private sector action



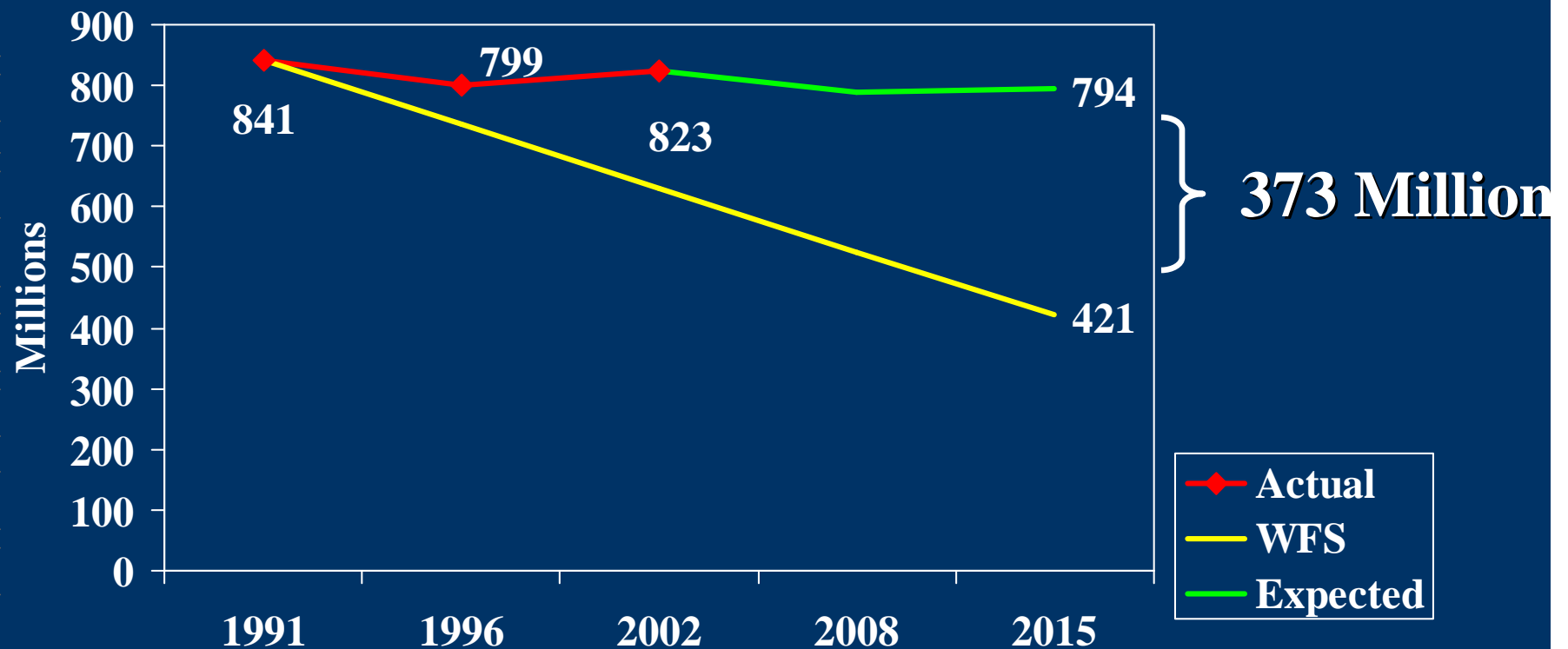
# *Where Are the Food Insecure?*



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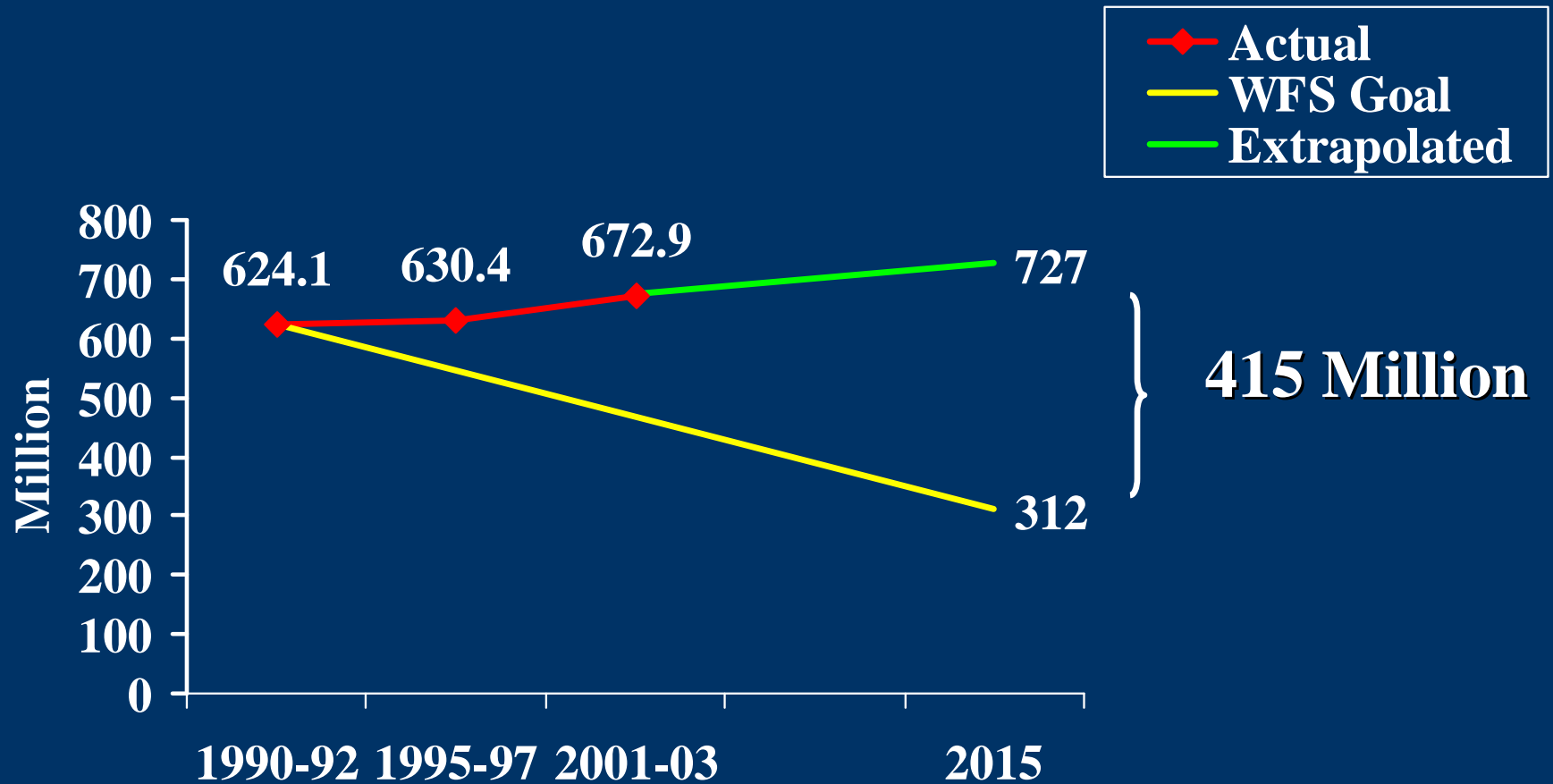
Source: FAO 2004

# *Global Progress Towards Meeting the WFS Goal*





# Global Progress Towards Meeting the WFS Goal (Excluding China)



# Food Security Consequences of the Global Food Crisis Depend on:

- Price Transmission
- Whether HH is net buyer or net seller
- HH food budget share
- Extent of value addition
- Relative price changes among diet components
- Intrahousehold decision-making process
- Length of run
- Are estimates of 75-100 million additional food insecure based on solid evidence?



# Sustainable Food Security: Challenges

- Political issues
  - Lack of commitment in LDCs
  - Adverse perceptions of agriculture in DCs
- Increasing water scarcity
- Soil degradation
- Climate change
- Low productivity (water, land, labor)
- Poor rural infrastructure
- Poorly functioning markets



# Sustainable Food Security: Challenges (Con't)

- Rapid increase in market concentration
- Continued population growth
  - Increasing demand for staples
- Dietary transition
  - Increasing demand for high-value crops and livestock as well as feed
- Increasing demand for biofuel
- Closer link between food and oil prices.



# Main Opportunities

- Attention of policy-makers to food crisis
- Application of modern science
- Expanding investment in public goods
- Internalizing environmental costs into private costs
- Improving policies and institutions



# Suggested Priority 1

- Large-scale investments in rural infrastructure, domestic markets and Human Resources
  - Feeder roads
  - Appropriate institutions
    - Farmer associations
    - Public sector institutions (contract enforcement, weights and measures, etc.)
  - Market information
  - Water management infrastructure
  - Primary education and health care and improved sanitation



# Suggested Priority 2

- A doubling of public investment in agricultural research and technology
  - Improved water management to enhance use efficiency
  - Increased sustainable land and labor productivity and reduced production risks
    - Biotic and abiotic stresses: drought tolerance, resistance to insects and diseases
    - Sustainable production methods
  - Mitigation of impact of climate change and adaptation to changes that will occur



# Suggested Priority 3

- Enhanced policy incentives to the private sector to invest in sustainable agriculture
  - Savings and credit institutions for farmers
  - Risk management tools for farmers and traders (for market and production risks)
  - Public goods investments
  - Strengthen the purchasing power of small-holders
  - Establish competitive funds for technology development
  - Assure incentives for private sector innovation





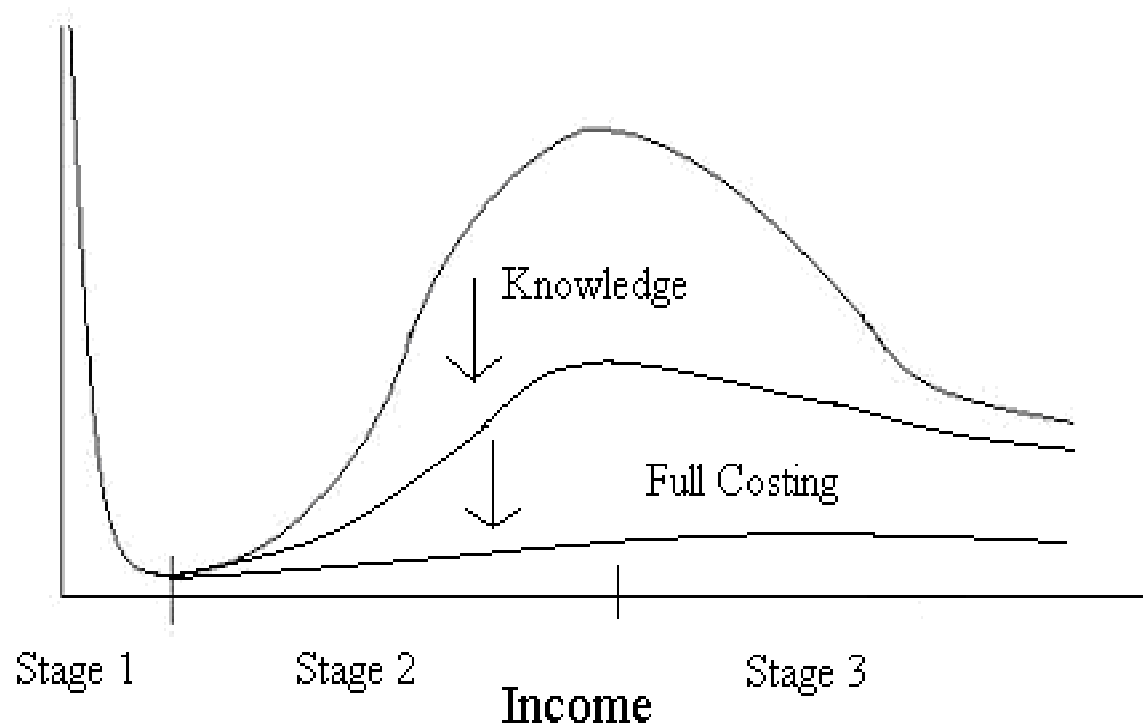
# Suggested Priority 4

- Full Costing
- Clarity on water and land tenure
- Pursue win-win-win solutions



# *The Modified Environmental Kuznets Curve*

Deforestation/Soil Mining



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